

Periscope.

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THE DEVELOPMENT OF THE BRANCHES OF THE FIFTH CRANIAL NERVE IN MAN. A. Francis Dixon, B.A., M.B., Tr. Royal Dublin Society. 1896.

From the study of human embryos of the fourth to eighth week, the author reaches the following conclusions relative to the development of the fifth nerve:

Three divisions arise from a single undivided Gasserian ganglion: Before the origin of the ophthalmic a cellular cord stretches from the ganglion and occupies the place of the future nerve cord. From the ganglion axis cylinder processes grow out into this cellular cord; in this manner the ophthalmic branch is formed; by the sixth week all of the ophthalmic branches are represented. The ciliary ganglion is present at this time and has the same relations as in the adult. It is not a homologue of a spinal ganglion. In the sixth week the otic ganglion and Meckel's ganglion are in close connection. The chorda tympani and vidian branches do not arise from the fifth nerve, nor are the cells of the accessory ganglion derived from the Gasserian.

JELLIFFE.

SUR UNE PARTICULARITÉ DE STRUCTURE DES CELLULES DE LA COLONNE DE CLARKE ET SUR L'ÉTAT DE CES CELLULES DANS LE TABES SIMPLE OU ASSOCIÉ A LA PARALYSIE GÉNÉRALE. [Concerning a Peculiarity of Structure of the Cells of the Column of Clarke, and the Condition of these Cells in Simple Tabes, or Tabes associated with General Paralysis.] *Revue Neurologique*, Nov. 21, 1896. By G. Marinesco.

Marinesco has examined three spinal cords from patients afflicted with general paralysis and tabes. In general paralysis the cells of the column of Clarke are tumefied, and the nucleus in most of them is displaced to the periphery. The chromatophilic elements form a thin layer along a portion, or the whole of the border of the cell. The nucleus is seldom round, more commonly is elliptical and flattened, occasionally reniform or crescentic. The nucleus may cause a rupture of the cell wall, and in this way form hernia. The more eccentric the nucleus is, the fewer are the chromatophilic elements. The processes of the cells are less numerous. In simple tabes the cells of the column of Clarke show less intense lesions. The cells in the posterior cornua are also in part altered.

In the cases examined the cells of the anterior cornua were not all intact, and Marinesco believes the alteration in these is more common than is usually believed.

In normal cells the nuclei are central, for the centre of the cell represents the region of maximum nutrition.

Marinesco found some alterations in the cells of the column of Clarke in patients who had not had tabes or general paralysis, but these changes were always of less grade. SPILLER.

ON THE GROUPING OF THE ENDOGENIC FIBRES IN THE POSTERIOR COLUMNS OF THE CORD. [Sur le Groupement des Fibres Endogènes de la Moelle dans les Cordons Postérieures.] H. Dufour. Archives de Neurologie, Aug., 1896.

The author, after reviewing the contradictory opinions of a number of observers as to the presence of descending fibres in the posterior columns, gives the result of his studies upon a case in which the posterior roots were involved by an epitheliomatous mass from the third lumbar nerve downward, the disease having been present about five years. The cord itself was not macroscopically involved.

The posterior roots were studied. Those of the sacral region were entirely destroyed; those of the lumbar still contained some healthy fibres.

The author comes to the conclusions which he contends are in accord with recent observations by Souques and Marines (Presse Medicale, 1896; and Hoche, Neur. Cent., 1896), that there is a tract of fibres in the posterior columns occupying a central position that degenerates downwards. These fibres are not to be confounded with descending collaterals of the posterior root fibres.

The author sums up his observations by the following conclusions:—

(1) The presence of descending collateral fibres is not yet absolutely demonstrated for the adult, but even if it be granted that they are present, this would not negative the presence of endogenous fibres suffering descending degeneration in the posterior columns of the cord.

(2) Two sets of fibres may be demonstrated, called endogenous or commissural. One anterior set forms a short tract, the other posterior, forms, with some of the fibres at least, a long tract.

JELLIFFE.

D'UN FAISCEAU SPECIAL DE LA ZONE LATÉRALE DE LA MOELLE ÉPINIÈRE. [Concerning a Special Bundle of Fibres in the Lateral Zone of the Spinal Cord.] Revue Neurologique, No. 23, 1896. By A. Bruce.

The researches of Cajal have shown that the lateral limiting layer, situated close to the gray matter between the anterior and posterior horns, consists of short fibres which arise and terminate within these horns. Bruce has examined a case of amyotrophic lateral sclerosis, in which not only the pyramidal tracts but also the greater part of the antero-lateral columns, with the exception of the ascending tracts, was degenerated. The anterior part of the lateral limiting layers was also affected, while the posterior was deeply stained. It would appear that the degenerated fibres in the former arose in the anterior horns, and the normal fibres of the latter portion chiefly in the posterior. It is necessary, therefore, to speak of the ventro-lateral and the dorso-lateral limiting layers. SPILLER.

ON THE PHENOMENA OF REPAIR IN NERVE CENTRES AFTER SECTION OF PERIPHERAL NERVES.

M. G. Marinesco (La Médecine Moderne, Nov. 18, 1896) reports some interesting observation upon this process. Experience has shown